

SIRT5 antibody
Rabbit Polyclonal Antibody
Catalog # ABV10178**Specification**

SIRT5 antibody - Product Information

Application	WB
Primary Accession	Q9NXA8
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33881

SIRT5 antibody - Additional Information**Gene ID** 23408

Positive Control	3T3 cell lysate
Application & Usage	Western Blot analysis (1-4 µg/ml). However, the optimal concentrations should be determined individually. Blocking peptide is available separately

Other Names

NAD-dependent deacetylase sirtuin-5, SIR2-like protein 5

Target/Specificity

Sirtuin-5

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) affinity purified rabbit anti- SIRT5 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 5 mM EDTA and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

SIRT5 antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SIRT5 antibody - Protein Information

Name SIRT5 {ECO:0000255|HAMAP-Rule:MF_03160}

Synonyms SIR2L5

Function

NAD-dependent lysine demalonylase, desuccinylase and deglutarylase that specifically removes malonyl, succinyl and glutaryl groups on target proteins (PubMed:21908771, PubMed:22076378, PubMed:24703693, PubMed:29180469). Activates CPS1 and contributes to the regulation of blood ammonia levels during prolonged fasting; acts by mediating desuccinylation and deglutarylation of CPS1, thereby increasing CPS1 activity in response to elevated NAD levels during fasting (PubMed:22076378, PubMed:24703693). Activates SOD1 by mediating its desuccinylation, leading to reduced reactive oxygen species (PubMed:24140062). Activates SHMT2 by mediating its desuccinylation (PubMed:29180469). Modulates ketogenesis through the desuccinylation and activation of HMGCS2 (By similarity). Has weak NAD-dependent protein deacetylase activity; however this activity may not be physiologically relevant in vivo. Can deacetylate cytochrome c (CYCS) and a number of other proteins in vitro such as UOX.

Cellular Location

Mitochondrion matrix. Mitochondrion intermembrane space. Cytoplasm, cytosol. Nucleus. Note=Mainly mitochondrial. Also present extramitochondrially, with a fraction present in the cytosol and very small amounts also detected in the nucleus [Isoform 2]: Mitochondrion {ECO:0000255|HAMAP- Rule:MF_03160, ECO:0000269|PubMed:21143562}

Tissue Location

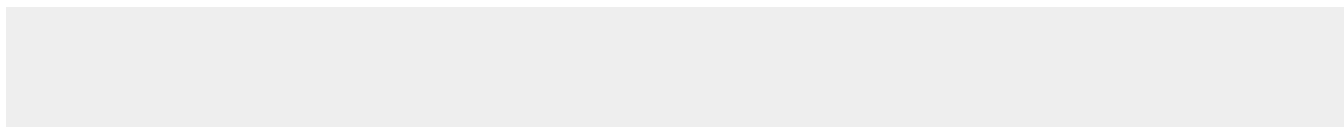
Widely expressed..

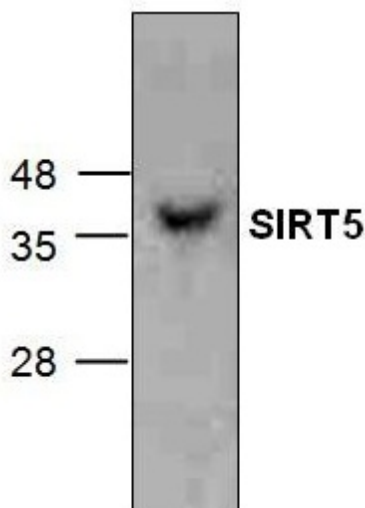
SIRT5 antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SIRT5 antibody - Images





Western blot analysis of SIRT5 using 3T3 cell lysate.

SIRT5 antibody - Background

Silent information regulator (Sir2)-like family deacetylases (also known as sirtuins) are highly conserved proteins and have important roles in the regulation of metabolism, inflammation, cellular survival growth and differentiation. SIRT5 is a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Sirtuins are NAD-dependent protein ADP-ribosyl transferase which catalyzes the transfer of ADP-ribosyl groups onto target proteins. Alternative splicing of this gene results in two transcript variants.